AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of determining a parameter ~~(RTO)~~ associated with a retransmission time-out feature in a data unit transmitter implementing a protocol ~~(TCP)~~ that provides an acknowledgment feature of sending acknowledgment messages for the correct receipt of data units from the receiver to the sender of a communication, and provides said retransmission time-out feature of retransmitting data units if an acknowledgment does not arrive at the sender within a time-out period, comprising the steps of:

measuring a round trip time value ~~(RTT)~~, the round trip time being indicative of the time that passes between the sending of a given data unit and the receipt of the acknowledgment corresponding to said given data unit,

calculating a new smoothed round trip time value ~~(SRTT(new))~~ at least on the basis of a stored smoothed round trip time value ~~(SRTT(old))~~ and said measured round trip time value ~~(RTT)~~,

calculating a new mean deviation value ~~(RTTVAR(new))~~ indicative of the mean deviation of said round trip time values ~~(RTT)~~ over time, at least on the basis of a stored mean deviation value ~~(RTTVAR(old))~~, said measured round trip time value ~~(RTT)~~ and said stored smoothed round trip time value ~~(SRTT(old))~~, and

calculating said parameter ~~(RTO)~~ at least on the basis of said new smoothed round trip time value ~~(SRTT(new))~~ and said new mean deviation value ~~(RTTVAR(new))~~,

where a contribution of said measured round trip time value ~~(RTT)~~ to said new mean deviation value ~~(RTTVAR(new))~~ is different if said measured round trip time value ~~(RTT)~~ is smaller than a predetermined threshold ~~(TH(SRTT(old)))~~ that is determined on the basis of said stored smoothed round trip time value ~~(SRTT(old))~~, than if said measured round trip time value ~~(RTT)~~ is greater than said predetermined threshold ~~(TH(SRTT(old)))~~.

2. (Currently Amended) The method of claim 1, wherein said predetermined threshold ~~(TH(SRTT(old))~~ is equal to said stored smoothed round trip time value ~~(SRTT(old))~~.

3. (Currently Amended) The method of claim 1, wherein said new mean deviation value ~~(RTTVAR(new))~~ is calculated as being equal to or smaller than said stored mean deviation value ~~(RTTVAR(old))~~ if said measured round trip time value ~~(RTT)~~ is smaller than said predetermined threshold ~~(TH(SRTT(old)))~~.

4. (Currently Amended) The method of claim 1, wherein said new mean deviation value ~~(RTTVAR(new))~~ is calculated as a function of said stored mean deviation value ~~(RTTVAR(old))~~, said stored smoothed round trip time value ~~(SRTT(old))~~, said measured round trip time value ~~(RTT)~~, and a weight factor ~~(h)~~ if said measured round trip time value ~~(RTT)~~ is larger than said predetermined threshold ~~(TH(SRTT(old)))~~.

5. (Currently Amended) The method of claim 4, wherein said weight factor ~~(h)~~ is variable over time.

6. (Original) The method of claim 5, wherein said new mean deviation value (RTTVAR(new)) is calculated as:

RTTVAR(new) =

RTTVAR(old) + h · ((RTT - SRTT(old)) - RTTVAR(old))

if said measured round trip time value (RTT) is greater or equal to said predetermined threshold (TH(SRTT(old))), where RTTVAR(new) represents the new mean deviation value, RTTVAR(old) represents the stored mean deviation value, SRTT(old) represents the stored round trip time value, RTT represents the measured round trip time value, and h represents said weight factor.

7. (Original) The method of claim 5, wherein said new mean deviation value (RTTVAR(new)) is calculated as

RTTVAR(new) =

RTTVAR(old) + h · ((RTT - SRTT(old)) - RTTVAR(old))

if said measured round trip time value (RTT) is greater or equal to said predetermined threshold (TH(SRTT(old))) and

(RTT - SRTT(old)) - RTTVAR(old) ≥ 0,

and as

RTTVAR(new) =

RTTVAR(old) + h^2 · ((RTT - SRTT(old)) - RTTVAR(old))

if said measured round trip time value (RTT) is greater or equal to said predetermined threshold (TH(SRTT(old))) and

(RTT - SRTT(old)) - RTTVAR(old) < 0,

where RTTVAR(new) represents the new mean deviation value, RTTVAR(old) represents the stored mean deviation value, SRTT(old) represents the stored round trip time value, RTT represents the measured round trip time value, and h represents said weight factor.

8. (Currently Amended) The method of claim 4, wherein ~~the~~ a value of said weight factor ~~(h)~~ at a given time is associated with a value ~~(N, SN, ssthresh)~~ indicative of the number ~~(N)~~ of data units that were sent up to said given time, but that were not acknowledged up to said given time.

9. (Currently Amended) The method of claim 8, wherein said value ~~(N, SN, ssthresh)~~ indicative of the number ~~(N)~~ of data units that were sent up to said given time, but that were not acknowledged up to said given time, is one of the

- number ~~(N)~~ of data units that were sent up to said given time, but that were not acknowledged up to said given time,

- a smoothed average ~~(SN)~~ of said number ~~(N)~~ of data units that were sent up to said given time, but that were not acknowledged up to said given time, and

- the slow start threshold ~~(ssthresh)~~.

10. (Currently Amended) The method of claim 8, wherein said weight factor ~~(h)~~ is equal to the inverse value of ~~the~~ a sum of said value ~~(N, SN, ssthresh)~~ indicative of the number ~~(N)~~ of data units that were sent up to said given time, but that were not acknowledged up to said given time, and one.

11. (Currently Amended) A method of determining a parameter ~~(RTO)~~ associated with a retransmission time-out feature in a data unit transmitter implementing a protocol ~~(TCP)~~ that provides an acknowledgment feature of sending acknowledgment messages for the correct receipt of data units from the receiver to the sender of a communication, and provides said retransmission time-out feature of retransmitting data units if an acknowledgment does not arrive at the sender within a time-out period, comprising the steps of:

measuring a round trip time value ~~(RTT)~~, the round trip time being indicative of the time that passes between the sending of a given data unit and the receipt of the acknowledgment corresponding to said given data unit,

calculating a new smoothed round trip time value ~~(SRTT(new))~~ at least on the basis of a stored smoothed round trip time value ~~(SRTT(old))~~, said measured round trip time value ~~(RTT)~~, and a first weight factor ~~(g)~~,

calculating a new mean deviation value ~~(RTTVAR(new))~~ indicative of the mean deviation of said round trip time values ~~(RTT)~~ over time, at least on the basis of a stored mean deviation value ~~(RTTVAR(old))~~, said measured round trip time value ~~(RTT)~~, said stored smoothed round trip time value ~~(SRTT(old))~~, and a second weight factor (h), and

calculating said parameter ~~(RTO)~~ at least on the basis of said new smoothed round trip time value ~~(SRTT(new))~~, said new mean deviation value ~~(RTTVAR(new))~~, and a third weight factor ~~(w)~~,

where at least one of said first, second and third weight factors ~~(g, h, w)~~ is variable over time.

12. (Currently Amended) The method of claim 11, wherein ~~the~~ a value at a given time of said at least one weight factor, is associated with a value ~~(N, SN, ssthresh)~~ indicative of the number ~~(N)~~ of data units that were sent up to said given time, but that were not acknowledged up to said given time.

13. (Currently Amended) The method of claim 11, wherein said first ~~(g)~~, second ~~(h)~~ and third ~~(w)~~ weight factor are time dependent, and said first ~~(g)~~ and second ~~(h)~~ weight factor are identical, and said third weight factor ~~(w)~~ is equal to the inverse value of said first weight factor ~~(g)~~.

14. (Currently Amended) The method of claim 12, wherein said first weight factor ~~(g)~~ and said second weight factor ~~(h)~~ is equal to ~~the~~ an inverse value ~~(1/F)~~ of a predetermined function ~~(F)~~ of said value ~~(N, SN, ssthresh)~~ indicative of the number ~~(N)~~ of data units that were sent up to said given time, but that were not acknowledged up to said given time, and said third weight factor ~~(w)~~ is equal to said function ~~(F)~~.

15. (Currently Amended) The method of claim 14, wherein said predetermined function ~~(F)~~ is the sum of said value ~~(N, SN, ssthresh)~~ indicative of the number ~~(N)~~ of data units that were sent up to said given time, but that were not acknowledged up to said given time, and one.

16. (Currently Amended) The method of claim 12, wherein said value ~~(N, SN, ssthresh)~~ indicative of the number ~~(N)~~ of data units that were sent up to said given time, but that were not acknowledged up to said given time, is one of the

- number ~~(N)~~ of data units that were sent up to said given time, but that were not acknowledged up to said given time,

- a smoothed average ~~(SN)~~ of said number ~~(N)~~ of data units that were sent up to said given time, but that were not acknowledged up to said given time, and

- the slow start threshold ~~(ssthresh)~~.

17. (Currently Amended) A method of determining a parameter ~~(RTO)~~ associated with a retransmission time-out feature in a data unit transmitter implementing a protocol ~~(TCP)~~ that provides an acknowledgment feature of sending acknowledgment messages for the correct receipt of data units from the receiver to the sender of a communication, and provides said retransmission time-out feature of retransmitting data units if an acknowledgment does not arrive at the sender within a time-out period, comprising the steps of:

measuring a round trip time value ~~(RTT)~~, the round trip time being indicative of the time that passes between the sending of a given data unit and the receipt of the acknowledgment corresponding to said given data unit,

calculating a new smoothed round trip time value ~~(SRTT(new))~~ at least on the basis of a stored smoothed round trip time value ~~(SRTT(old))~~ and said measured round trip time value ~~(RTT)~~,

calculating a new mean deviation value ~~(RTTVAR(new))~~ indicative of the mean deviation of said round trip time values ~~(RTT)~~ over time, at least on the basis of a stored mean deviation value ~~(RTTVAR(old))~~, said measured round trip time value ~~(RTT)~~ and said stored smoothed round trip time value ~~(SRTT(old))~~, and

calculating said parameter ~~(RTO)~~ at least on the basis of said new smoothed round trip time value ~~(SRTT(new))~~ and said new mean deviation value ~~(RTTVAR(new))~~,

where said parameter ~~(RTO)~~ is also calculated on the basis of a value ~~(Φ(SPTO)~~ indicative of the number ~~(SPTO)~~ of spurious time-outs that occurred in said communication between said sender and said receiver.

18. (Currently Amended) The method of claim 17, wherein said parameter ~~(RTO)~~ is calculated as a product of a first factor that depends on said new smoothed round trip

time value ~~(SRTT(new))~~ and said new mean deviation value ~~(RTTVAR(new))~~, and a second factor that depends on said value ~~(Φ(SPTO))~~ indicative of the number of spurious time-outs.

19. (Currently Amended) The method of claim 17, wherein said value ~~(Φ(SPTO))~~ indicative of the number of spurious time-outs is the sum of one and the product of the fraction of the number ~~(n(SPTO))~~ of data unit retransmissions caused by spurious time-outs divided by the total number ~~(n)~~ of transmitted data units over a predetermined period of time and a multiplication factor ~~(f)~~.

20. (Currently Amended) The method of claim 19, wherein said multiplication factor ~~(f)~~ is greater or equal to fifty.

21. (Currently Amended) The method of claim 17, wherein said value ~~(Φ(SPTO))~~ indicative of the number of spurious time-outs is a smoothed average ~~(SR)~~ determined on the basis of the number of spurious time-outs.

22. (Original) The method of claim 21, wherein said smoothed average (SR) is determined such that when an acknowledgment is received, it is determined if said acknowledgment indicates a spurious time-out, in which case a stored value of said smoothed average (SR) is updated as the minimum of an integer constant (N) and

$$SR + wsr \cdot (1 - SR),$$

where SR represents the stored value of said smoothed average, and wsr represents a weight factor, and

if said time-out is not a spurious time-out, said smoothed average is updated as the product of said stored value of said smoothed average and a predetermined factor.

23. (Currently Amended) The method of claim 22, wherein said weight factor ~~(wsr)~~ is equal to 0.5.

24. (Currently Amended) The method of claim 22, wherein said predetermined factor is associated with a value ~~(M)~~ indicative of the number of data units sent per cycle.

25. (Currently Amended) The method of claim 24, wherein said value ~~(M)~~ indicative of the number of data units per cycle is determined on the basis of the slow start threshold ~~(ssthresh)~~.

26. (Original) The method of claim 25, wherein said value (M) is determined as

$$M = 1.5 \cdot ssthresh^2$$

where M represents said value and ssthresh represents the slow start threshold.

27. (Original) The method of claim 24, wherein said predetermined factor is equal to

$$(1 - (K/M)),$$

where M represents said value (M) indicative of the number of data units sent per cycle, and K is a value with $0 \leq K < 1$.

28. (Currently Amended) The method of claim 1, wherein an upper and a lower limit value are set for said parameter ~~(RTO)~~.

29. (Currently Amended) The method of claim 28, wherein said lower limit value is at least the sum of the measured round trip time value ~~(RTT)~~ and the tick size ~~(TICK)~~, where the tick size is the smallest period of time that a timing system in said data unit transmitter can resolve.

30. (Currently Amended) The method of claim 11, wherein an upper and a lower limit value are set for said parameter ~~(RTO)~~.

31. (Currently Amended) The method of claim 30, wherein said lower limit value is at least the sum of the measured round trip time value ~~(RTT)~~ and the tick size ~~(TICK)~~, where the tick size is the smallest period of time that a timing system in said data unit transmitter can resolve.

32. (Currently Amended) The method of claim 17, wherein an upper and a lower limit value are set for said parameter ~~(RTO)~~.

33. (Currently Amended) The method of claim 32, wherein said lower limit value is at least the sum of the measured round trip time value ~~(RTT)~~ and the tick size ~~(TICK)~~, where the tick size is the smallest period of time that a timing system in said data unit transmitter can resolve.

34. (Currently Amended) The method of claim 1, wherein the round trip time ~~(RTT)~~ is measured for every data unit sent by said sender.

35. (Currently Amended) The method of claim 34, wherein said parameter ~~(RTO)~~ is calculated each time that a round trip time value ~~(RTT)~~ is measured.

36. (Currently Amended) The method of claim 11, wherein the round trip time ~~(RTT)~~ is measured for every data unit sent by said sender.

37. (Currently Amended) The method of claim 36, wherein said parameter ~~(RTO)~~ is calculated each time that a round trip time value ~~(RTT)~~ is measured.

38. (Currently Amended) The method of claim 17, wherein the round trip time ~~(RTT)~~ is measured for every data unit sent by said sender.

39. (Currently Amended) The method of claim 38, wherein said parameter ~~(RTO)~~ is calculated each time that a round trip time value ~~(RTT)~~ is measured.

40. (Original) A computer program product directly loadable into the internal memory of a digital computer, comprising software code portions for performing the method of claim 1 when said product is run on a digital computer.

41. (Original) A computer program product directly loadable into the internal memory of a digital computer, comprising software code portions for performing the method of claim 11 when said product is run on a digital computer.

42. (Original) A computer program product directly loadable into the internal memory of a digital computer, comprising software code portions for performing the method of claim 17 when said product is run on a digital computer.

43. (Currently Amended) A data unit transmitter arranged for implementing a protocol ~~(TCP)~~ that provides an acknowledgment feature of sending acknowledgment messages for the correct receipt of data units from the receiver to the sender of a communication, and provides a retransmission time-out feature of retransmitting data units if an acknowledgment does not arrive at the sender within a time-out period, and arranged for determining a parameter ~~(RTO)~~ associated with said retransmission time-out feature, comprising:

a round trip time measurer arranged for measuring a round trip time value ~~(RTT)~~, the round trip time being indicative of the time that passes between the sending of a given data unit and the receipt of the acknowledgment corresponding to said given data unit, and

a calculator arranged for

- calculating a new smoothed round trip time value ~~(SRTT(new))~~ at least on the basis of a stored smoothed round trip time value ~~(SRTT(old))~~ and said measured round trip time value ~~(RTT)~~,

- calculating a new mean deviation value ~~(RTTVAR(new))~~ indicative of the mean deviation of said round trip time values ~~(RTT)~~ over time, at least on the basis of a stored mean deviation value ~~(RTTVAR(old))~~, said measured round trip time value ~~(RTT)~~ and said stored smoothed round trip time value ~~(SRTT(old))~~, and

- calculating said parameter ~~(RTO)~~ at least on the basis of said new smoothed round trip time value ~~(SRTT(new))~~ and said new mean deviation value ~~(RTTVAR(new))~~,

where said calculator is furthermore arranged such that a contribution of said measured round trip time value ~~(RTT)~~ to said new mean deviation value ~~(RTTVAR(new))~~ is different if said measured round trip time value ~~(RTT)~~ is smaller than a predetermined threshold ~~(TH(SRTT(old)))~~ that is determined on the basis of said stored smoothed round trip time value ~~(SRTT(old))~~, than if said measured round trip time value ~~(RTT)~~ is larger than said predetermined threshold ~~(TH(SRTT(old)))~~.

44. (Currently Amended) A data unit transmitter arranged for implementing a protocol ~~(TCP)~~ that provides an acknowledgment feature of sending acknowledgment messages for the correct receipt of data units from the receiver to the sender of a communication, and provides a retransmission time-out feature of retransmitting data units if an acknowledgment does not arrive at the sender within a time-out period, and arranged for determining a parameter ~~(RTO)~~ associated with said retransmission time-out feature, comprising:

a round trip time measurer arranged for measuring a round trip time value ~~(RTT)~~, the round trip time being indicative of the time that passes between the sending of a given data unit and the receipt of the acknowledgment corresponding to said given data unit, and

a calculator arranged for

- calculating a new smoothed round trip time value ~~(SRTT(new))~~ at least on the basis of a stored smoothed round trip time value ~~(SRTT(old))~~, said measured round trip time value ~~(RTT)~~, and a first weight factor ~~(g)~~,

- calculating a new mean deviation value ~~(RTTVAR(new))~~ indicative of the mean deviation of said round trip time values ~~(RTT)~~ over time, at least on the basis of a stored mean deviation value ~~(RTTVAR(old))~~, said measured round trip time value ~~(RTT)~~, said stored smoothed round trip time value ~~(SRTT(old))~~, and a second weight factor (h), and

- calculating said parameter ~~(RTO)~~ at least on the basis of said new smoothed round trip time value ~~(SRTT(new))~~, said new mean deviation value ~~(RTTVAR(new))~~, and a third weight factor ~~(w)~~,

where said calculator is furthermore arranged such that at least one of said first, second and third weight factors ~~(g, h, w)~~ is variable over time.

45. (Currently Amended) A data unit transmitter arranged for implementing a protocol ~~(TCP)~~ that provides an acknowledgment feature of sending acknowledgment messages for the correct receipt of data units from the receiver to the sender of a communication, and provides a retransmission time-out feature of retransmitting data units if an acknowledgment does not arrive at the sender within a time-out period, and arranged for determining a parameter ~~(RTO)~~ associated with said retransmission time-out feature, comprising:

a round trip time measurer arranged for measuring a round trip time value ~~(RTT)~~, the round trip time being indicative of the time that passes between the sending of a given data unit and the receipt of the acknowledgment corresponding to said given data unit, and

a calculator arranged for

- calculating a new smoothed round trip time value ~~(SRTT(new))~~ at least on the basis of a stored smoothed round trip time value ~~(SRTT(old))~~ and said measured round trip time value ~~(RTT)~~,

- calculating a new mean deviation value ~~(RTTVAR(new))~~ indicative of the mean deviation of said round trip time values ~~(RTT)~~ over time, at least on the basis of a stored mean deviation value ~~(RTTVAR(old))~~, said measured round trip time value ~~(RTT)~~ and said stored smoothed round trip time value ~~(SRTT(old))~~, and

- calculating said parameter ~~(RTO)~~ at least on the basis of said new smoothed round trip time value ~~(SRTT(new))~~ and said new mean deviation value ~~(RTTVAR(new))~~,

where said calculator is furthermore arranged such that said parameter ~~(RTO)~~ is also calculated on the basis of a value ~~(SR)~~ indicative of the number of spurious time-outs that occurred in said communication between said sender and said receiver.